## [Abstract]

It is possible to realize high-speed data processing between processing modules with a small communication amount when performing information processing of a large amount of data employing the parallel computer architecture. Each of the processing modules transmits a first list as a list of values stored in the memory of the local processing module to another processing module in the information processing system and receives at least one second list as a list of values transmitted from the another processing module to the local processing module so as to compare the values in the second list with the values in the first list. When the values in the second list coincide with the values in the first list, counters corresponding to the values in the first list which have coincided are incremented by one.